

L Number	Hits	Search Text	DB	Time stamp
1	0	gole-anand-.in.	USPAT; US-PGPUB	2003/10/07 10:05
2	1	gole-anand-\$.in.	USPAT; US-PGPUB	2003/10/07 10:07
3	2	kumar-ashavani-.in.	USPAT; US-PGPUB	2003/10/07 10:07
4	1	phadtare-sumant-.in.	USPAT; US-PGPUB	2003/10/07 10:08
5	6	sastry-murali-.in.	USPAT; US-PGPUB	2003/10/07 10:09
6	548	glucose same (gold or auric or chloroaurate)	USPAT; US-PGPUB	2003/10/07 10:09
7	8	(glucose same (gold or auric or chloroaurate)) same lipid\$1	USPAT; US-PGPUB	2003/10/07 10:15
8	124	(glucose same (gold or auric or chloroaurate)) same (substrate\$1 or film\$1)	USPAT; US-PGPUB	2003/10/07 10:16
9	30	((glucose same (gold or auric or chloroaurate)) same (substrate\$1 or film\$1)) same color\$8	USPAT; US-PGPUB	2003/10/07 10:20
10	3	(glucose same (gold or auric or chloroaurate)) same (test adj strip\$1)	USPAT; US-PGPUB	2003/10/07 10:21
11	8	(glucose same (gold or auric or chloroaurate)) and 436/95.ccls.	USPAT; US-PGPUB	2003/10/07 10:37
12	1	(glucose same (gold or auric or chloroaurate)) same octadecylamine	USPAT; US-PGPUB	2003/10/07 10:38
13	2	(glucose same (gold or auric or chloroaurate)) and octadecylamine	USPAT; US-PGPUB	2003/10/07 10:38
14	2	(glucose same (gold or auric or chloroaurate)) same arachidic	USPAT; US-PGPUB	2003/10/07 10:39
15	0	(glucose same (gold or auric or chloroaurate)) same octadecanol	USPAT; US-PGPUB	2003/10/07 10:39
16	0	(glucose same (gold or auric or chloroaurate)) same phosphatidicyethanolamine	USPAT; US-PGPUB	2003/10/07 10:39
17	8926	gold same color\$8	USPAT; US-PGPUB	2003/10/07 10:39
18	2556	(gold same color\$8) same (substrate\$1 or film\$1 or strip\$1)	USPAT; US-PGPUB	2003/10/07 10:40
19	246	((gold same color\$8) same (substrate\$1 or film\$1 or strip\$1)) and 436/\$.ccls.	USPAT; US-PGPUB	2003/10/07 10:40
20	10053	glucose same color\$8	USPAT; US-PGPUB	2003/10/07 10:40
21	1947	(glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)	USPAT; US-PGPUB	2003/10/07 10:40
22	2440	(glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)	USPAT; US-PGPUB	2003/10/07 10:41
23	534	((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) and 436/\$.ccls.	USPAT; US-PGPUB	2003/10/07 10:41
24	31	((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) same (gold or auric or chloroaurate)	USPAT; US-PGPUB	2003/10/07 10:41
25	8	((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) same (gold or auric or chloroaurate)) and 436/\$.ccls.	USPAT; US-PGPUB	2003/10/07 10:44
26	23	((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) same (gold or auric or chloroaurate)) not (((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) same (gold or auric or chloroaurate)) and 436/\$.ccls.)	USPAT; US-PGPUB	2003/10/07 10:45
27	71	((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) and 436/95.ccls.	USPAT; US-PGPUB	2003/10/07 10:45
28	6	((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) and 436/95.ccls.) and gold	USPAT; US-PGPUB	2003/10/07 10:48

29	197	((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) and 435/14.ccls.	USPAT; US-PGPUB	2003/10/07 10:48
30	15	((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) and 435/14.ccls.) and gold	USPAT; US-PGPUB	2003/10/07 10:48
31	13	((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) and 435/14.ccls.) and gold) not (((glucose same color\$8) same (substrate\$1 or film\$1 or strip\$1)) and 436/95.ccls.) and gold)	USPAT; US-PGPUB	2003/10/07 10:56
32	1	5789255.pn.	USPAT; US-PGPUB	2003/10/07 10:57
33	42437	gold same (film\$1 or substrate\$1)	USPAT; US-PGPUB	2003/10/07 10:57
34	0	(gold same (film\$1 or substrate\$1)) same lioid\$1	USPAT; US-PGPUB	2003/10/07 10:57
35	120	(gold same (film\$1 or substrate\$1)) same lipid\$1	USPAT; US-PGPUB	2003/10/07 10:57
36	1	((gold same (film\$1 or substrate\$1)) same lipid\$1) same auric	USPAT; US-PGPUB	2003/10/07 10:57
37	0	((gold same (film\$1 or substrate\$1)) same lipid\$1) same chloroaurate	USPAT; US-PGPUB	2003/10/07 10:58
38	1	((gold same (film\$1 or substrate\$1)) same lipid\$1) same octadecylamine	USPAT; US-PGPUB	2003/10/07 10:58
39	1	((gold same (film\$1 or substrate\$1)) same lipid\$1) same arachidic	USPAT; US-PGPUB	2003/10/07 10:58
40	0	((gold same (film\$1 or substrate\$1)) same lipid\$1) same octadecanol	USPAT; US-PGPUB	2003/10/07 10:58
41	14	((gold same (film\$1 or substrate\$1)) same lipid\$1) same phospholipid\$1	USPAT; US-PGPUB	2003/10/07 10:58

# WEST Search History

DATE: Tuesday, October 07, 2003

<u>Set</u> <u>Name</u> side by side	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set</u> <u>Name</u> result set
	<i>DB=JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>		
L29	l24 and phosphatidylethanolamine	0	L29
L28	l24 and octadecanol	0	L28
L27	l24 and arachidic	3	L27
L26	l24 and octadecylamine	0	L26
L25	L24 and lipid\$1	19	L25
L24	L23 and (gold or auric or chloroaurate)	18342	L24
L23	substrate\$1 or film\$1	2133569	L23
L22	l12 and color\$8	3	L22
L21	l12 and (test adj strip\$1)	0	L21
L20	L19 and color\$8	1	L20
L19	l12 and (substrate\$1 or film\$1)	36	L19

L18	l12 and phosphatidylethanolamine	0	L18
L17	l12 and octadecanol	0	L17
L16	l12 and arachidic	0	L16
L15	l12 and octadecylamine	0	L15
L14	l12 and octadecylamine	0	L14
L13	L12 and lipid\$1	2	L13
L12	glucose and (gold or auric or chloroaurate)	86	L12
L11	sastry-m-\$.in.	6	L11
L10	phadtare-s-\$.in.	2	L10
L9	L8	0	L9
L8	phadtare-s-/\$.in.	0	L8
L7	l5 and glucose	0	L7
L6	L5 and gold	2	L6
L5	kumar-a-\$.in.	157	L5
L4	l2 and glucose	0	L4
L3	L2 and gold	0	L3
L2	gole-\$.in.	22	L2
L1	gole-a-\$.in.	0	L1

END OF SEARCH HISTORY

d.his

(FILE 'HOME' ENTERED AT 07:40:38 ON 07 OCT 2003)

FILE 'CAPLUS, CAOLD, MEDLINE, BIOSIS' ENTERED AT 07:40:52 ON 07 OCT 2003  
E GOLE ANAND/AU

L1 39 S E1-E5  
L2 2 S L1 AND GLUCOSE  
L3 2 DUP REMOV L2 (0 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 07:41:47 ON 07 OCT 2003

L4 0 S L1 AND GOLD

FILE 'CAPLUS, CAOLD, MEDLINE, BIOSIS' ENTERED AT 07:43:09 ON 07 OCT 2003

L5 12 S L1 AND GOLD  
L6 4 S L5 AND LIPID?  
L7 4 DUP REMOV L6 (0 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 07:46:25 ON 07 OCT 2003

FILE 'CAPLUS, CAOLD, MEDLINE, BIOSIS' ENTERED AT 07:48:06 ON 07 OCT 2003  
E KUMAR ASHAVANI/AU

L8 36 S E3-E4  
L9 2 S L8 AND GLUCOSE  
L10 20 S L8 AND GOLD  
L11 3 S L10 AND LIPID?  
L12 17 S L10 NOT L11  
L13 15 DUP REMOV L12 (2 DUPLICATES REMOVED)  
E PHADTARE SUMANT/AU

L14 18 S E3  
L15 2 S L14 AND GLUCOSE  
L16 10 S L14 AND GOLD  
L17 2 S L16 AND LIPID?  
L18 8 S L16 NOT L17  
L19 7 DUP REMOV L18 (1 DUPLICATE REMOVED)  
L20 4 S L19 NOT L12

E SASTRY MURALI/AU  
L21 189 S E3  
L22 2 S L21 AND GLUCOSE  
L23 73 S L21 AND GOLD  
L24 10 S L23 AND LIPID?  
L25 10 DUP REMOV L24 (0 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 08:01:58 ON 07 OCT 2003

FILE 'CAPLUS, CAOLD, MEDLINE, BIOSIS' ENTERED AT 08:10:52 ON 07 OCT 2003

L26 2449 S GLUCOSE AND (GOLD OR AURIC OR CHLOROAUATE)  
L27 105 S L26 AND LIPID?  
L28 12 S L27 AND SUBSTRATE?  
L29 8 DUP REMOV L28 (4 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 08:14:35 ON 07 OCT 2003

FILE 'CAPLUS, CAOLD, MEDLINE, BIOSIS' ENTERED AT 08:15:50 ON 07 OCT 2003

L30 7 S L27 AND FILM?  
L31 4 S L30 NOT L28  
L32 4 DUP REMOV L31 (0 DUPLICATES REMOVED)  
L33 0 S L27 AND OCTADECTLAMINE  
L34 2 S L27 AND OCTADECYLAMINE  
L35 1 S L27 AND ARACHIDIC ACID  
L36 1 S L27 AND OCTADECANOL  
L37 5 S L27 AND COLOR?

L38           5 DUP REMOV L37 (0 DUPLICATES REMOVED)  
L39           1 S GLUCOSE AND COLLODIAL GOLD  
L40       24032 S GOLD AND SUBSTRATE?  
L41       8834 S L40 AND FILM  
L42           9 S L41 AND (AURIC OR CHLOROAUATE)  
L43           9 DUP REMOV L42 (0 DUPLICATES REMOVED)  
L44       53 S L41 AND LIPID?  
L45           4 S L44 AND OCTADECYLAMINE  
L46           4 DUP REMOV L45 (0 DUPLICATES REMOVED)  
L47           2 S L44 AND ARACHIDIC ACID  
L48           1 S L44 AND OCTADECANOL  
L49           0 S L44 AND PHOSPHATIDYLETHANOLAMINE

=>

L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2001:130744 CAPLUS  
DN 134:357806

TI Lamellar Langmuir-Blodgett films of hydrophobized colloidal **gold** nanoparticles by organization at the air-water interface

AU Sastry, M.; **Gole, A.**; Patil, V.

CS Materials Chemistry Division, National Chemical Laboratory, Pune, 411 008, India

SO Thin Solid Films (2001), 384(1), 125-131

CODEN: THSFAP; ISSN: 0040-6090

PB Elsevier Science S.A.

DT Journal

LA English

AB The organization of hydrophobically modified colloidal Au nanoparticles at the air-H<sub>2</sub>O interface and the formation thereafter of lamellar, multilayer films of the nanoparticles by the Langmuir-Blodgett (LB) technique is described. The hydrophobization of the Au colloidal particles was accomplished by the electrostatic extn. of carboxylic acid derivatized Au particles (synthesized in an aq. medium, 35 .ANG. in size) from soln. into thermally evapd. fatty amine films by a simple immersion procedure. The acid-base complex formed by the assocn. of the carboxylic acid groups bound to the colloidal particle surface and the amine groups in the **lipid** matrix gives a strongly-bound hydrophobic sheath of fatty amine mols. around the particles. The colloidal Au particles can thereafter be dissolved in different org. solvents, dried and redispersed repeatedly without significant aggregation of the Au particles. The hydrophobic Au particles were dissolved in a spreading solvent and organized on the surface of H<sub>2</sub>O. The organization of the particles and the formation of multilayer films by the Langmuir-Blodgett technique was followed by surface pressure-area isotherm measurements of the colloidal particle Langmuir monolayer, quartz crystal microgravimetry, UV-visible spectroscopy and FTIR spectroscopy. A close-packed monolayer of the colloidal particles was formed on the surface of H<sub>2</sub>O and excellent multilayer films of the colloidal nanoparticles can be grown on different supports by sequential transfer by the LB technique.

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2000:122220 CAPLUS  
DN 132:199460  
TI Formation of patterned, heterocolloidal nanoparticle thin films  
AU Sastry, Murali; Gole, Anand; Sainkar, S. R.  
CS Materials Chemistry Division, National Chemical Laboratory, Pune, 411 008,  
India  
SO Langmuir (2000), 16(7), 3553-3556  
CODEN: LANGD5; ISSN: 0743-7463  
PB American Chemical Society  
DT Journal  
LA English  
AB Synthesis of colloidal nanocomposite films by electrostatic self-assembly  
is carried out by the formation of thin, patterned, heterocolloidal  
nanoparticle assemblies of **gold**, silver, and Q-state CdS. These  
multicomponent colloidal particle films can be grown by a procedure based  
on blocking electrostatically driven diffusion pathways of charged  
colloidal particles into ionizable lipid films. The diffusion onto the  
films appears to be normal to the film surface, and once complete cluster  
incorporation was achieved, exchange of clusters with other clusters  
during immersion in different colloidal solns. does not occur. Therefore  
seamless, multicolloidal particle films can be deposited by this way.  
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2003:767304 CAPLUS  
TI Time-Dependent Complexation of Cysteine-Capped **Gold**  
Nanoparticles with Octadecylamine Langmuir Monolayers at the Air-Water  
Interface  
AU Mayya, K. Murali; **Gole, Anand**; Jain, Nirmesh; Phadtare, Sumant;  
Langevin, Dominique; Sastry, Murali  
CS Materials Chemistry Division, National Chemical Laboratory, Pune, 411 008,  
India  
SO Langmuir ACS ASAP  
CODEN: LANGD5; ISSN: 0743-7463  
PB American Chemical Society  
DT Journal  
LA English

*date 2003 no good*

AB In this paper, we present time-dependent studies on the complexation of cysteine-capped **gold** nanoparticles with octadecylamine (ODA) Langmuir monolayers. The cysteine mols. bound to the colloidal **gold** surface via thiolate linkages impart a net neg. charge to the particles due to deprotonated carboxylic acid groups. Strong attractive electrostatic interaction between the neg. charged **gold** nanoparticles and pos. charged ODA monolayer drives the complexation process. The extent of complexation of the **gold** nanoparticles and subsequent Langmuir-Blodgett (LB) film formation is a function of charge on the particles/monolayer. The charge on the nanoparticles/monolayer may be controlled by simple variation of the subphase pH. At pH 9, the carboxylic acid groups on the particles are highly ionized leading to strong electrostatic attraction with the protonated ODA monolayer, while at pH 12, the ODA monolayer is deprotonated leading to a redn. in the electrostatic interaction. The nanoparticle complexation with the ODA Langmuir monolayer has been followed in real time by a host of techniques such as surface pressure-area (.pi.-A) isotherms, pressure-time (.pi.-t) isotherms, Brewster angle microscopy, ellipsometry, and pendant drop analyses. LB films of the nanogold-ODA composites have been characterized by UV-vis spectroscopy, Fourier transform IR spectroscopy, and contact angle measurements. These measurements clearly indicate uniform nanoparticle deposition at pH 9 (pH of max. electrostatic interaction). The LB films of the **gold** nanoparticles were also tested for thermal stability.

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L2 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:765027 CAPLUS

DN 136:95264

TI **Glucose** induced in-situ reduction of **chloroaurate** ions  
entrapped in a fatty amine film: formation of **gold**  
nanoparticle-lipid composites

AU Gole, Anand; Kumar, Ashavani; Phadtare, Sumant; Mandale, A. B.; Sastry,  
Murali

CS Mat. Chem. Div., National Chem. Lab., Pune, 411 008, India

SO PhysChemComm [online computer file] (2001) No pp. given, Paper No. 19

CODEN: PHCCFX; ISSN: 1460-2733

URL: <http://hotdog.rsc.org/ej/qu/2001/b106564e/b106564e.pdf>

PB Royal Society of Chemistry

DT Journal; (online computer file)

LA English

AB The formation of **gold** nanoparticle-lipid composite films by  
**glucose**-induced redn. of **chloroaurate** ions entrapped in  
thermally evapd. fatty amine films is described. Simple immersion of  
films of the salt of octadecylamine and **chloroaurate** ions  
(formed by immersion of thermally evapd. fatty amine films in chloroauric  
acid soln.) in **glucose** leads to the facile in-situ redn. of the  
metal ions to form **gold** nanoparticles in the he fatty amine  
matrix. The formation of **gold** nanoparticles is readily detected  
by the appearance of a violet color in the film and thus forms the basis  
of a possible new, **gold** nanoparticle-based colorimetric sensor  
for **glucose**. The formation of the fatty amine salt of  
chloroauric acid and the subsequent redn. of the metal ions by  
**glucose** was followed by quartz crystal microgravimetry, FTIR  
spectroscopy, x-ray photoemission spectroscopy and TEM measurements.

RE.CNT 27 . THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT